

silver derivative, and then treating this with the alkyl iodide. The reactions of the ester so obtained are clearly those of the enolic ester, the alkyl group not being directly united to carbon.—The arable earths of the Canton of Redon from the point of view of phosphoric acid, by M. G. Lechartier. The analyses given show how it is that certain lands in the Canton have been successfully cultivated from time immemorial, without the use of phosphatic manures.—Geographical positions and magnetic observations on the eastern coast of Madagascar, by M. P. Colin. The latitude and longitude of Vatomandry and Mahanoro have been redetermined, and also the values of the magnetic elements at those places. The results show that the existing maps require correction in some respects.—Prof. Burdon-Sanderson was elected a Correspondant for the Section of Medicine and Surgery in the place of the late Sir James Paget.—Positions of fundamental polar stars determined at the Observatory of Lyons, by M. F. Gonnessiat.—Shooting stars observed at Athens during the year 1899, by M. D. Eginitis.—On the method of Neumann and the problem of Dirichlet by M. A. Korn.—On an application of the method of successive approximations, by M. A. Davidoglou.—On the distribution of prime numbers, by M. Helge von Koch.—On gas engines, by M. L. Marchis. A reply to the criticisms of M. Witz.—An electrically driven pendulum, by M. Ch. Féry. The mechanism described is arranged so as to leave the pendulum as far as possible unconstrained.—The heat of neutralisation of hydrogen peroxide by lime, by M. de Forcrand.—Solubility of a mixture of salts having a common ion, by M. Charles Touren. The curve showing the relation between the solubility of potassium bromide in solutions of potassium bromide of different concentrations is not coincident with the corresponding curve for potassium nitrate and chloride. Hence the law proposed by Nernst, that equivalent solutions of nitrate and bromide should lower the solubility of the chloride to the same extent, is not verified. The author notes as an interesting application of the phase rule that the study of the solubility of a mixture of salts may show that they are isomorphous, when direct proof may be difficult.—The action of phenyl isocyanate and of aniline upon some γ -keto acids, by M. T. Klobb.—Some new compounds of antipyrine with mercury halides, by MM. J. Ville and Ch. Aste.—On acetyl-phenylacetylene and benzoyl-phenylacetylene, by MM. Ch. Moureu and R. Delange. Acetyl-phenylacetylene is quantitatively decomposed by alcoholic potash into phenylacetylene and potassium acetate; benzoyl-phenylacetylene reacts differently, acetophenone being produced.—On the stability of saccharose solutions, by M. Echsner de Coninck.—Study of the hydrolysis of fibrous tissue, by M. A. Etard. The fibrous tissue of beef, hydrolysed with sulphuric acid, gives a polysaccharide, but practically no leucine.—On some fresh-water *Palaemonidae* of Madagascar, by M. H. Coutière.—On a new edible tuber from the Soudan, the Ousounify, by M. Maxime Cornu. The Ousounify is a tuber resembling the potato in taste, which is cultivated and sold in the Soudan. It is a labiate, and is provisionally named *Plectranthus Coppini*. It has the advantage over the potato that it can be grown in a truly tropical climate.—On the mineralogical composition of the teschenites, by M. A. Lacroix. The hornblende teschenites of Madagascar are analogous, both in structure and mineralogical composition, to the teschenites from Portugal and the Pyrenees, but they contain the nepheline intact. The teschenites from both regions were probably originally identical from the mineralogical point of view.—On the excitement of the electrical nerve of the gymnotus by its own current, by M. Mendelssohn. The electric nerve of the torpedo fish may be excited by its own current.—On the southern aurora observed during the wintering of the Belgian Antarctic expedition.—Barometric deviations produced on the parallel on successive days of the synodic revolution, by M. A. Poincaré.

DIARY OF SOCIETIES.

THURSDAY, MAY 17.

ROYAL SOCIETY, at 4.30.—The Circulation of the Surface Waters of the North Atlantic Ocean: H. N. Dickson.—(1) On Cerebral Anæmia and the Effects which follow Ligation of the Cerebral Arteries; (2) The Influence of Increased Atmospheric Pressure on the Circulation of the Blood. Preliminary Note: Dr. Leonard Hill.—Contributions to the Comparative Anatomy of the Mammalian Eye, chiefly based on Ophthalmoscopic Examination: Dr. Lindsay Johnson.
ROYAL INSTITUTION, at 3.—A Century of Chemistry at the Royal Institution: Prof. J. Dewar, F.R.S.

ZOOLOGICAL SOCIETY, at 4.30.—The Freshwater Fishes of Africa: G. A. Boulenger, F.R.S.
SOCIETY OF ARTS (Indian Section), at 4.30.—The Industrial Development of India: J. A. Baines.

INSTITUTION OF ELECTRICAL ENGINEERS, at 8.—Alternating Current Induction Motors: A. C. Eborall.
CHEMICAL SOCIETY, at 8.—Chlorine Derivatives of Pyridine. VI. The Orientation of some Aminochloropyridines: W. J. Sell and F. W. Dootson.

FRIDAY, MAY 18.

ROYAL INSTITUTION, at 9.—The Structure of Metals: Prof. J. A. Ewing, F.R.S.
EPIDEMIOLOGICAL SOCIETY, at 8.30.

SATURDAY, MAY 19.

ROYAL INSTITUTION, at 3.—South Africa: Past and Future: Dr. Alfred Hillier.

MONDAY, MAY 21.

SOCIETY OF ARTS, at 8.—The Incandescent Gas Mantle and its Use: Prof. Vivian B. Lewes.
ROYAL GEOGRAPHICAL SOCIETY, at 3.—Anniversary Meeting.
VICTORIA INSTITUTE, at 4.30.—Ethics: Rev. Dr. Wace.

TUESDAY, MAY 22.

ROYAL INSTITUTION, at 3.—Brain Tissue and Thought: Dr. A. Hill.
ZOOLOGICAL SOCIETY, at 8.30.—On the Development of the Skeleton of the Tuatera, *Sphenodon (Hatteria) punctatus*: Prof. G. B. Howes, F.R.S., and H. H. Swinerton.—On Crustaceans from the Falkland Islands collected by Mr. Rupert Vallentin: Rev. T. R. R. Stebbing, F.R.S.—The Significance of the Hair-slope in certain Mammals: Dr. Walter Kidd.
ROYAL PHOTOGRAPHIC SOCIETY, at 8.—Hydroquinone and Colour Impressions: Alfred Watkins.

WEDNESDAY, MAY 23.

SOCIETY OF ARTS, at 8.—Salmon Legislation: J. Willis-Bund.
GEOLOGICAL SOCIETY, at 8.—The Igneous Rocks of the Coast of County Waterford: F. R. C. Reed.—On a New Type of Rock from Kentallen and elsewhere, and its Relations to other Igneous Rocks in Argyllshire: J. B. Hill and H. Kynaston.

THURSDAY, MAY 24.

LINNEAN SOCIETY at 3.—Anniversary Meeting.
INSTITUTION OF ELECTRICAL ENGINEERS, at 8.—Annual General Meeting.

FRIDAY, MAY 25.

ROYAL INSTITUTION, at 9.—The Great Alpine Tunnels: Francis Fox.
PHYSICAL SOCIETY, at 5.—Experiments illustrating the Aberration called Coma: Prof. S. P. Thompson, F.R.S.—Notes on the Measurement of some Standard Resistances: R. T. Glazebrook, F.R.S.—On the Strength of Ductile Materials under Combined Stresses: J. J. Guest.

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